

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/830,730	ASSMANN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Satya B Sastri	1713	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on March 31, 2004.
2. ☒ The allowed claim(s) is/are 17-39 and 41-47.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### DETAILED ACTION

1. This office action is in response to the amendment filed on March 31, 2004. With the cancellation of claim 40, *claims 17-39, 41-47* are now pending the application. In view of the amendment, rejection of *claims 36-38 and 47* under 35 U.S.C. 102(b) as being anticipated by Denzinger et al. (US 4,698,174) and rejection of *claim 39* under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Denzinger et al. (US 4,698,174) are rendered moot.

### EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Glenn Murphy on April 6, 2004.

The application has been amended as follows:

- **On page 3, after line 25 and before "Description of the Invention", insert the following lines:**

#### BREIF DESCRIPTION OF DRAWINGS

The fluidized bed used to produce the granules of the Examples, as illustrated in the two Figs., has a cylindrical fluidized bed chamber 1 from which a conical widening leads to a cylindrical stabilizing chamber 8 onto which the waste air outlet 9 is welded. Air is supplied primarily via the inflowing air channel 6 which opens into the inflowing air distribution chamber 5 from which the inflowing air passes through the diffuser 7 into the fluidized bed chamber 1. According to the invention, the fluidized bed dryer also has an air supply system above the diffuser 7. This air supply system is formed by two air injection tubes 3 which are arranged at a uniform distance apart from one another and at an angle of incidence  $\alpha = 60^0$  on the outer wall 2. In this fluidized bed dryer, the usual resting height of the bed material is 0.2 m and the air injection tubes 3 are situated at 30% of that height. Discharge from the continuously operated fluidized bed takes place via the grading tube 4.

- On page 31, delete lines 3-16.

#### *Allowable Subject Matter*

3. *Claims 17-39, 41-47* are allowed.

The following is an examiner's statement of reasons for allowance:

The present claims are allowable over the closest reference to Denzinger et al. (US 4,698,174) Sato et al. (US 4,386,120).

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The present claims are directed to a process for the production of soluble polymer comprising the steps of simultaneously granulating and drying, in a fluidized bed dryer having a diffusor plate, a water-based preparation comprising at least 30% by weight of one or more soluble polymers, in which the dryer one or more air inlets above the diffusor plate produce an eddy flow in the bed about the vertical axis of the dryer (claim 17) and water soluble polymer granules comprising 50-95% by wt. of. Copolymers, said polymers comprising one or more homopolymers or copolymers of vinyl pyrrolidone with a molecular weight in the range of 1000-200,000 with at least one admixing compound (*claims 17, 36*).

The prior art to Denzinger et al. relates to pulverulent and/or granular additives for detergent and cleaning agents, consisting of (a) from 80 to 20% by weight of one or more copolymers comprising from about 40 to 90% by weight of (meth)acrylic acid and from 60 to 10% by weight of maleic acid and/or one or more copolymers comprising from 10 to 45% by weight of (meth)acrylic acid, from 10 to 45% by weight maleic acid and from 10 to 60% by weight of one or more hydroxyalkyl (meth)acrylate, if appropriate in the form of a partially or completely neutralized water-soluble salt, (b) from 20 to 80% by weight of nitroacetic acid or its salt and (c) 0 to 20% by weight of one or more additives conventionally used for detergent and cleaning agent. Denzinger et al. disclose a process for the production of water-soluble polymer granules in a fluidized bed by drying in a fluidized bed but does not disclose the fluidized bed dryer as having a diffusor plate with air inlets above the diffusor plate to produce an eddy flow in the bed about the vertical axis. Additionally, the prior art teaches soluble polymer granules based on (meth)acrylic acid or maleic acid but does not teach granule granule composition based on

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copolymers of vinyl pyrrolidone or soluble (co)polymers with additives such as dextrin or inorganic carriers.

The prior art to Sato et al. discloses a process of producing polyacrylic acid salt granules by fluidized bed granulation device that include fluidized bed, modified fluidized bed type or jet bed type but does not teach fluidized bed dryer having a diffusor plate, a water-based preparation comprising at least 30% by weight of one or more water soluble polymers, in which drier with one or more air inlets above the diffusor plate produces an eddy flow in the bed about the vertical axis.

Therefore, the instantly claimed invention is deemed allowable over the closest prior art of record as per said art neither anticipating nor rendering obvious the instantly claimed process for production of soluble polymer granules or the composition. There is no teaching or suggestion or motivation to modify the prior art processes or compositions.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri at (571) 272-1112.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached at (571) 272-1114.

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Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 308-0661.

*Satya Sastri*

SATYA SASTRI

April 6, 2004

*David W. Wu*

DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
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